NOAA, NATIONAL WEATHER SERVICE, WEATHER FORECAST OFFICE

Miami, Florida 33165

Wet April Brings Drought Relief to Southeast Florida

Drought Conditions Persist over Western Areas

April brought welcome rains to much of South Florida after a long stretch of below normal precipitation extending back to November of last year. Most areas of South Florida received above normal rainfall last month, except for areas west of Lake Okeechobee and along the southwest Florida Gulf coast where rainfall was near normal. Southeast Florida received most of the higher amounts in April, mostly in the 6 to 8 inch range. Other parts of southern Florida received anywhere from 3 to 5 inches of rain, except for areas west of the Lake and near the Gulf coast where about 2 to 3 inches fell (Figure 2). This rainfall led to the tapering of drought conditions, with all east coast areas out of drought conditions. Areas around Lake Okeechobee as well as most of Collier County remain in moderate to severe drought conditions due to relatively less rainfall observed in these locations.

Most of the April rain fell in three episodes: one at mid-month from a low level trough which moved west from the Bahamas, another on April 21 and 22 in association with an unseasonably strong cold front and low pressure area and the last one from April 28-30 due to a slow-moving low pressure area over the Florida Straits.

Following are April 2012 rainfall totals, departure from normal in inches and ranking for selected locations (**NOTE**: April 2012 data for Miami Beach and below is through 8 AM April 30th).

Location (beginning of period of historical record)	**April 2012 Rainfall**	**Departure From Normal**	**Rank**
Miami (1855)	7.86	+4.71	7th wettest
Fort Lauderdale (1912)	5.23	+2.34	26th wettest
West Palm Beach (1888)	5.35	+1.69	28th wettest

Naples (1942)	2.47	+0.11	
Miami Beach (1927)	6.46	+3.26	7th wettest
Moore Haven (1918)	3.23	+0.90	
The Redland (1942)	6.85	+3.84	5th wettest
Hollywood (1963)	7.88	+4.99	
Fort Lauderdale Beach	9.21		
Cape Florida	6.56		
Homestead Gen. Airport	7.64		
Juno Beach	4.85		
Palm Beach Gardens	3.44		
Immokalee	1.56		
Muse (Glades)	4.15		
Big Cypress (Hendry)	3.91		
South Bay	4.12		
Oasis Ranger Station	3.45		
Marco Island	3.40		
LaBelle (1929)	3.14	+0.83	
Ortona (Glades)	2.38		
Canal Point (1941)	4.22	+1.60	12th wettest
NWS Miami	7.90		
North Miami Beach	7.36		

Temperatures

April began quite warm with the first 6-8 days of the month featuring high temperatures in the mid to upper 80s. Thereafter, periods of cloudiness and rain, along with unseasonably cool air from April 23-25, brought the monthly temperatures down to near or even slightly below normal across South Florida. Lowest temperatures observed during the cool snap of April 23-25 ranged from the 40s over interior sections to the 50s near both the Gulf and Atlantic coasts.

Here are April 2012 average temperatures and departure from normal in degrees F for the four main climate sites:

Location (beginning of period of historical record)	**April 2012 Avg Temp**	**Departure From Normal**
Miami (1895)	75.9	+0.1
Fort Lauderdale (1912)	75.1	-1.1
West Palm Beach (1888)	74.1	+0.3
Naples (1942)	73.8	+0.5

Outlook for May-July

The outlook by the Climate Prediction Center (CPC) for the May through July period calls for warmer than normal temperatures along with an equal chance of wetter, drier or near normal rainfall. However, data from historical analogs suggest that the May weather pattern could be a continuation of April and lead to wetter than normal conditions as La Niña conditions weaken and lower atmospheric pressures aloft prevail.

Increasing atmospheric instability caused by lower pressures could also result in periods of stormy weather across South Florida as May is typically one of our stormiest months with severe thunderstorms and hail accompanying the strongest thunderstorm activity. May is also the beginning of the South Florida rainy season which is marked by an increase in daily thunderstorm activity.

June and July may see a return to near or slightly below normal precipitation as the prevailing weather pattern returns to somewhat more normal conditions. Nevertheless, June and July are among the wettest months of the year and "normal" rainfall during this period can still be significant.

With the increase in thunderstorms expected in May and beyond, all persons are urged to keep abreast of daily weather forecasts and hazardous weather outlooks, watches, advisories and warnings by visiting the National Weather Service in Miami website at weather.gov/southflorida.

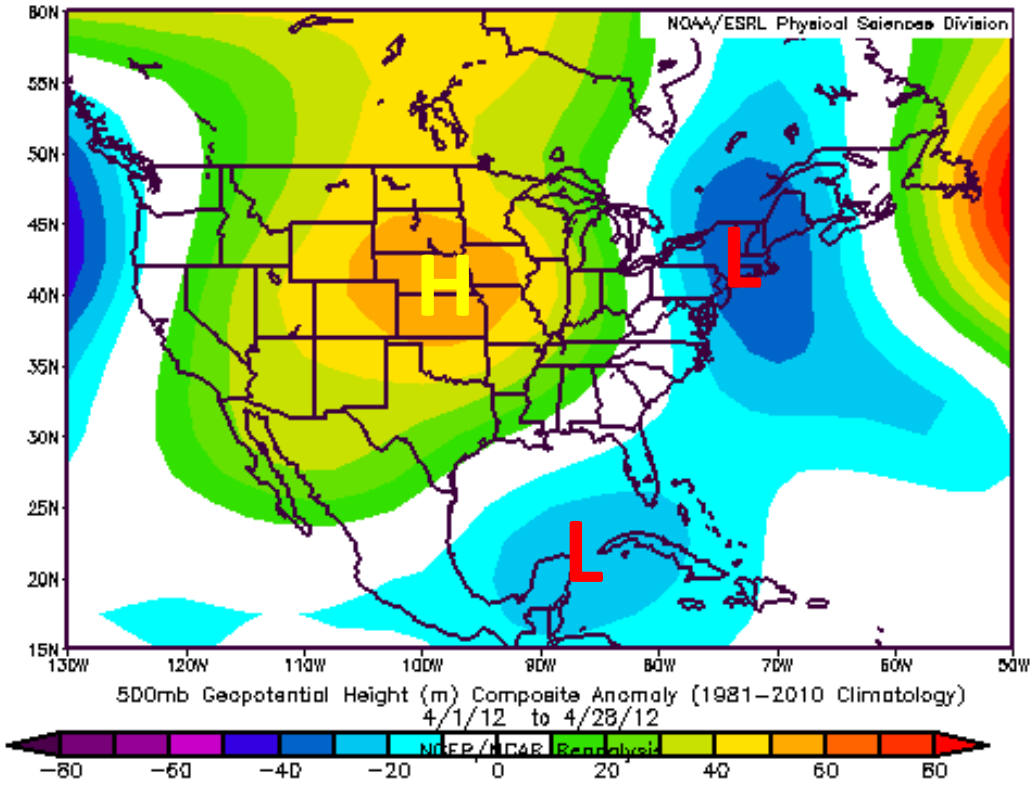

Figure 1: 500 mb (middle-tropospheric) height anomalies for April 2012. Lower heights corresponding to lower atmospheric pressure (L) covered the eastern seaboard, Florida, the southern Gulf of Mexico and the western Caribbean Sea, with stronger-than-normal high pressure (H) covered the central United States. Lower atmospheric pressure typically results in increased cloudiness and precipitation.

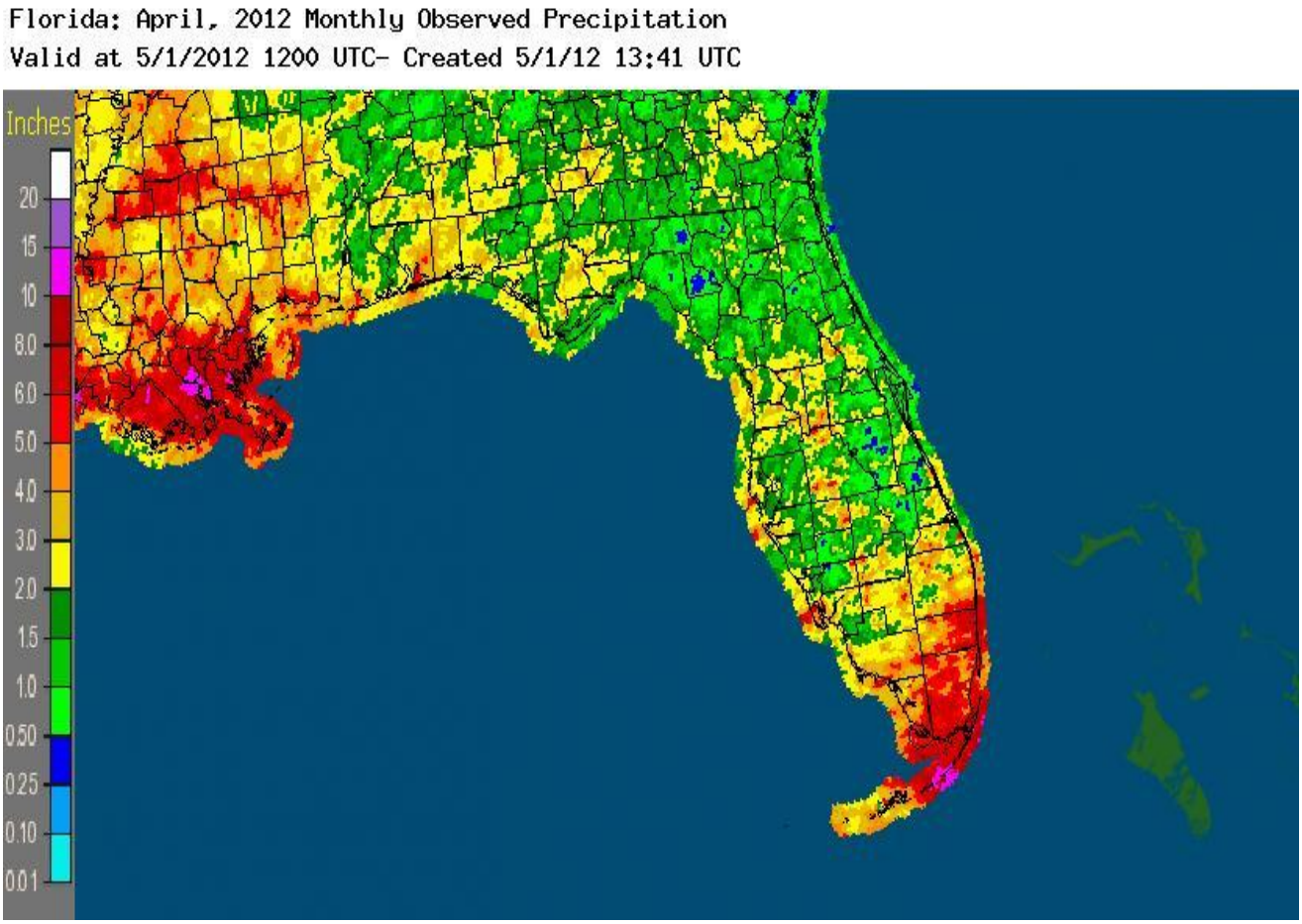

Figure 2: Rainfall amounts for April 2012.